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Diversity in Global Virtual Teams: A Partnership Development Perspective

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ABSTRACT

This dissertation is an attempt to develop and test a comprehensive model for global virtual team effectiveness based on development of partnership among diverse team members and the moderating role of collaborative technology and task interdependence. The model will be tested using filed survey methodology. The model is based on traditional I-P-O framework for understanding team effectiveness. Team diversity in terms of, surface level, deep level and functional, and diversity perceptions are treated as the central tenant of team inputs. Collaborative partnership quality is at the process level, moderated by task interdependence and use of collaborative technology as characterized by parallelism, transparency, and sociality. At the outcome level this dissertation is more interested in global virtual team effectiveness as measured by team performance and individual member satisfaction and the effect of partnership development towards relational conflict.

Keywords

GVT, Partnership, Diversity.

INTRODUCTION

In multinational organizations, global teams are increasingly making and implementing important decisions. Reports indicate that more than half of all companies with over 5000 employees are using Virtual Teams (VT) and more than 60% of white collar workers participate in VT (Martins et al., 2004). These Global Virtual Teams (GVT) were almost unheard of a decade ago, but today they serve as a critical mechanism for integrating information, making decision, and implementing actions around the world (Maznevski & Chudoba, 2000). The introduction of information communication technology (ICT) has benefited numerous organizations in enhancing productivity and obtaining competitive advantage (Townsend et. al., 1998).

While GVTs offer a wide range of benefits to MNCs, implementations will be at risk if organizations fail to adequately address the many challenges present. (Powell et. al., 2004). Challenges caused by barriers of distance and time zones, by language and cultural differences, by communication technology adoption and implementation, by too little or too much interaction, development of trust and shared understanding among the team members (Lurey & Raisinghani, 2001). Some of the VT project failures have been reported (Kaiser & Hawk, 2004) and calls for better understanding of VT effectiveness have been made (Gibson & Cohen, 2003).

Despite a growing enthusiasm for teams, little empirical research exists that explores the socio-emotional dynamics inherent in the virtual work environment (Martins et. al., 2004). Models that could be used to understand better team development and effectiveness have been limited to those based on the traditional co-located group perspective (Hertel et. al., 2005). Although virtual teams have been well defined as a concept, only a limited number of studies have contributed to the understanding of the processes inherent in the assembling and maintenance of effective diverse GVTs through use of collaborative technology (Baker, 2002) and creating enabling conditions for GVT effectiveness.

The purpose and aim of this study is to design a normative framework to assist organizations in implementing diverse GVTs, with specific focus on understanding impact of diversity on GVT effectiveness and relational conflict. In this regard, this research will aim at developing and testing a comprehensive model for GVT effectiveness based on development of partnership among diverse team members and the moderating role of collaborative technology and task interdependence. Research in multiple disciplines highlights partnership as "working relationship that reflects a commitment, a sense of mutual cooperation, shared risks and benefits, and other qualities consistent with concepts and theories of participatory decision making" (Anderson & Narus, 1990; Handerson, 1990).

RESEARCH QUESTIONS

Based on the above discussion, this dissertation seeks to answer three basic questions

1. What is the effect of collaborative partnership quality on GVT effectiveness?
2. What is the effect of collaborative partnership quality on relational conflict in GVTs?
3. What are the effects of diversity perceptions on collaborative partnership quality in GVTs?
4. How does perception of collaborative technological capabilities moderate the relationship between diversity perception and collaborative partnership quality?
5. How does the task interdependence moderates the relationship between diversity perception and collaborative partnership quality?

LITERATURE REVIEW

GVTs are groups that (a) are identified by their organization(s) and members as a team (Lipnack & Stamps, 1997); (b) are responsible for making and/or implementing decisions important to the organization's global strategy (Gibson & Cohen, 2003); (c) use technology- supported communication substantially more than face-to-face communication (Jarvenpaa & Leidner, 1999); and (d) work and live in different countries (Maznevski & Chudoba, 2000). As differentiated from a virtual team, a GVT differs not only in degree of virtuality, but also in terms of their national and cultural background (Zakaria, et. al., 2004).

A significant amount of research has been done on team and team structures and it has attracted researchers from areas of organization design, organizational theory, management and psychology. Multiple researchers have synthesized research on team performance (Guzzo & Dickson, 1996; Ilgen et. al., 2005). In IS literature initial studies of GVT emerged from the body of knowledge on traditional team effectiveness (Cohen & Bailey, 1997).

Research on VTs is still in a very early stage addressing the many questions that exist (Martins et al., 2004; Powell et al., 2004), it has examined a range of issues including effectiveness relative to social-psychological inputs (Furst et al., 1999), knowledge transfer (Griffith et al., 2003), technology (Baker, 2002), teams dynamics, communication, and outcomes (Maznevski and Chudoba, 2000), trust (Jarvenpaa et al., 1999; Piccoli & Ives, 2003), socialization (Ahuja & Galvin, 2003), and leadership effectiveness (Kayworth & Leidner, 2002). Overall, the focus of virtual team research has been on social issues (Malhotra et al., 2004) or team processes (Suchan & Hayzak, 2001).

Recent literature in GVTs highlighted the importance of relationship building, cohesion, and trust as fundamental processes that foster team effectiveness (Powell et. al., 2004) and GVTs face significant difficulty in achieving these processes (Solomon, 2001). Perhaps the greatest impediment facing GVTs is an inadequate understanding of team member's diversity and developing cohesion among these members (Lurey & Raisinghani, 2001). This work focuses on such diverse and heterogeneous GVTs that include members from diverse backgrounds and how to develop collaboration among such members.

THEORETICAL CONSIDERATIONS

This study derives its base and research from a multiple theory standpoint. Some of the ideas and groundwork are based on:

1. Cognitive resource diversity theory (Cox & Blake, 1991)

2. Social exchange theory (Blau, 1964; Kelley & Thibaut, 1978)

3. Adaptive Structuration theory (Desanctis & Poole, 1994)

RESEARCH MODEL DEVELOPMENT

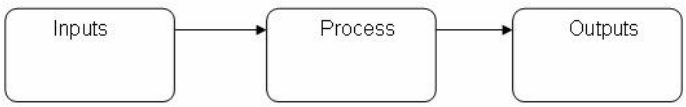

Figure 1. I–P–O Model for Team performance

As illustrated in Figure 1, an I-P-O model based on McGrath's (1984) perspective is the dominant way of thinking about team performance (Guzzo & Dickson, 1996). This basic I-P-O model is also basic model for understanding GVT effectiveness and processes (Powell et. al., 2004).

Recently, in team literature there has been growing recognition towards understanding the role of moderators (Illgen et al., 2005). A careful review of the team and VT literature identifies the following three conceptually based moderators: (a) team type, (b) task interdependence, and (c) frequency and duration of interactions (Powell et, al., 2004). Given that the type of

teams in question is GVT which shares and interacts with the use of technology, we can easily conclude that out of the four identified moderators only two are of paramount importance- task interdependence and frequency and duration of interactions. If interdependence is the "glue" that holds conventional teams together, communication and collaborative technologies serve as the bond linking the members of GVTs (Rico & Cohen, 2005).In this way, they become the key channel for interaction in VTs (Bell and Kozlowski, 2002). Figure 2 includes moderators.

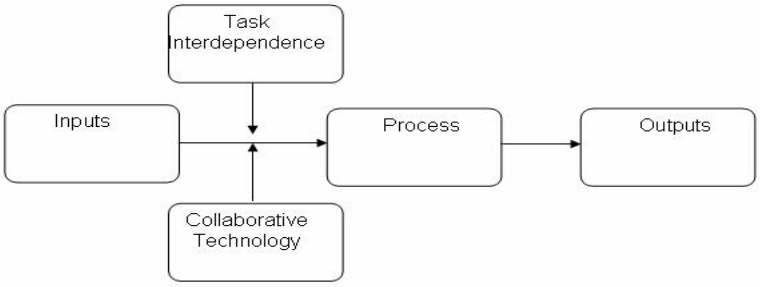

Figure 2. Inclusion of Moderators in the Research Model

Conceptual Research Model

In order to narrow the scope of this study and focus on the research questions this dissertation will concentrate on team diversity and diversity perceptions as the central tenant of team inputs. At the process level, this dissertation will examine the development of collaborative partnership quality. At the outcome level this dissertation is more interested in global virtual team effectiveness, consistent with operationalizations as advanced by Hackman (1990) and the effect of partnership development among diverse GVT members towards relational conflict. A modified research model which is adopted for this study is included as Figure 3.

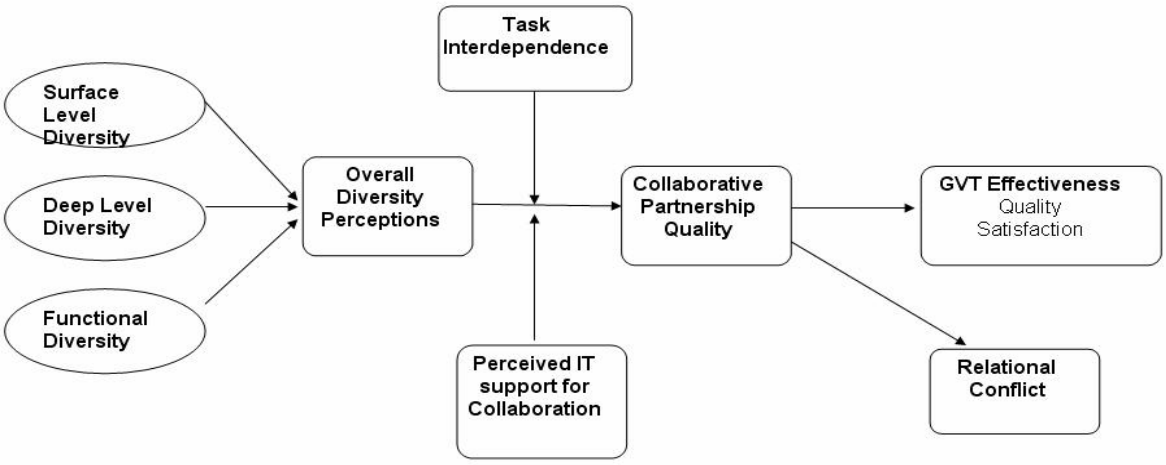

Figure 3. Conceptual Research Model

Diversity

From the various taxonomies, a dichotomous classification in investigating team diversity has emerged: (a) *Demographic diversity* – bio-demographic attributes such as age, gender, and race/ethnicity that are less germane to the team's task, (b) *functional diversity* - job-related attributes such as functional expertise, education, and organizational tenure, which are more relevant to the team's task and (c) *deep –level diversity* - psychological attributes such as personality, attitudes and individual values which are not readily observable and emerge through extended communication and interactions

Diversity Perception

Harrison et.al., (2002) hypothesized that actual diversity has indirect effects on team processes and actual diversity affects perceived diversity and perceived diversity affects social integration or cohesion in the team. In line with the existing literature this dissertation will measure and evaluate the overall diversity perceptions in GVT. In the VT environment the different types of diversities might not have a significant direct impact on outcome as most of the communication and interaction among the virtual team members takes place though electronic medium. But they will have an indirect effect on effectiveness through the interplay of partnership attributes and diversity perceptions among the team members.

Collaborative Partnership Quality

Collaborative partnership quality is determined by various elements. The basis of these elements is that partners help each other to see and do what they would have never been able to see or do on their own. These elements of a collaborative partnership are drawn from the works of Anderson & Narus (1990) and Handerson (1990). A definition of these elements is depicted in Table 1. It is established in literature that overall collaborative partnership quality will be determined by comprising the elements of partnership (Lee & Kim, 1999). Thus:

> *There is a positive relationship between elements of partnership, mutual benefits, shared goals, mutual trust, shared knowledge, and overall partnership quality between members of a global virtual team.*

Element	Definitions
Mutual benefits	Benefits from the relationship being derived by each member in the team (Anderson and Narus, 1990).
Shared Goal	Degree to which team members agree on the project aims with other team members. (Sarkar & Sahay, 2003)
Mutual Trust	Degree of confidence and willingness between members (Jarvenpaa et. al., 1998).
Shared Knowledge	Understanding or appreciation among members for the issues that affect performance (Lee and Kim, 1990; Griffith et al., 2003).

Table 1. Elements of Collaborative Partnership Quality

Perceived IT Support for Collaboration

VTs are possible only because of recent advances in ICT. Collaborative tools and technologies enable advancing of strategic initiatives by creating synergistic environments (Carte & Chidambaram, 2005)

Recently Sarkar et. al., (2005) developed a model of technology adoption by groups based on valence perspective. Based on their model they proposed that the technological characteristic which is particularly relevant in team decision making environment refers to the extent to which a technology is perceived to support team processes. This is termed as group supportability characteristic of a technology. They further stated that group supportability may be assessed based on the capability of the technology to enable parallelism, transparency, and sociality within the group context. Thus:

> *Perceived IT support for collaboration in terms of parallelism, transparency, and sociality will moderate the relationship between diversity perception and partnership quality in global virtual teams in that the relationship is stronger for teams with highly collaborative technologies than teams with low levels of collaborative technologies.*

Task Interdependence:

Task interdependence is defined as the degree to which completing tasks requires the interaction of team members (Stewart & Barrick, 2000). It is suggested in literature that task interdependence moderates the relationship between team diversity and team performance by influencing team member interaction and coordination (Shea & Guzzo, 1987). Potential positive effects of high task interdependence in traditional teams have been researched to include cohesion, trust, and sense of indispensability of personal contributions to the team (Hertel et al., 2004; Kirkman et. al., 2004). Thus:

> *Task Interdependence will moderate the relationship between diversity perception and partnership quality in global virtual teams in that the relationship is stronger for teams with high task interdependence than teams with low levels task interdependence.*

Relational Conflict

Researchers have long stated that conflict is an important process that allows teams to make better decisions because more alternatives are generated and considered prior to decision being reached (Jehn & Mannix, 2001). It is generally defined as a process in which members perceive that their opinions and interests are being opposed or are being negatively affected by another member (Wall & Callister, 1995).

In literature it has been established that conflict per se is not detrimental to team functioning but if managed properly it can lead to better effectiveness of the team (Mortensen & Hinds, 2001). Research has shown that when team members have trust, common goals, and shared knowledge they tend to agree on norms regarding work, and this agreement in turns promote harmony (Nemeth & Staw, 1989) and decreases interpersonal tensions. Thus high value of consensus and partnership quality elements seem to be beneficial to work teams, in that it is likely to reduce relationship conflict and increase team performance. Thus:

> *Collaborative partnership quality will have a negative relationship with relational conflict.*

Team Effectiveness

The team literature defines effectiveness in terms of group-produced output and the consequences a group has for its members (Cohen & Bailey, 1997; Guzzo & Dickson, 1996). Team performance and individual satisfaction are the two most common variables when examining virtual team outcomes (Powell et al., 2004). There has also been a substantial amount of research done to determine what antecedents are necessary for successful performance (Majchrzak et al., 2000; Maznevski & Chudoba, 2000) and satisfied team members (Kayworth & Leidner, 2002). However, none of the research has examined the impact of partnership development on virtual team performance or team satisfaction.

Performance is defined as the degree to which the groups' products or services meet the standards of quantity, quality, and timeliness of those who receive, review, and /or use the output. Individual satisfaction is defined as the degree to which the groups' experience contributes to the growth and personal well being of team members. Thus:

> *It is hypothesized that there is a positive relationship between collaborative partnership quality and Output quality, efficiency quality and time quality.*
>
> *It is hypothesized that there is a positive relationship between collaborative partnership quality and virtual team members' satisfaction.*

PROPOSED RESEARCH METHODOLOGY

The study would be conducted using a field survey methodology. Defined as -study of single or multiple and related processes/ phenomena in single or multiple organizations (Palvia et. al., 2004). Instrument will be developed from existing literature wherever possible and pre-tested on a sample of 5-6 GVT. In the actual survey, GVT in organizations would be identified through a sponsor. Estimated sample size would be greater than 200 individual team members representing about 45-50 teams. Individual team members would respond to the survey items.

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